GASCH

Results of Subsurface Investigation

Mobil Jalk Fee Property 10607 Norwalk Boulevard Santa Fe Springs, California

Prepared for:

Alton Geoscience

Irvine, California

Dates of Investigation: August 24-25, 1999

Prepared by:

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Warranty:

Spectrum Geophysics was retained to conduct a subsurface investigation of the above facility to characterize the shallow subsurface. Our findings are subject to certain limitations due to site conditions and the instruments employed. conducted this investigation in a manner consistent with our profession using similar methods. No other warranty as to the performance or deliverables is expressed or implied.

San Diego

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GEOPHYSICS

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Introduction

On August 24 and 25, 1999 Spectrum Geophysics conducted a subsurface investigation at the Mobil Jalk Fee Property in Santa Fe Springs, California. The purpose was to delineate the surface trace of detectable subsurface metallic conduits in an area approximately 9 acres in size.

Methods

The equipment used in this investigation consisted of a shallow-focus terrain conductivity meter, an RD-400 utility locator, a passive electromagnetic receiver, and a GSSI SIR-3 ground penetrating radar (GPR) unit coupled to a 500-MHz antenna.

The shallow focus terrain conductivity meter was used to identify buried metallic conduits, especially those with no surface expression. The RD-400 utility locator was used to locate the subsurface trace of metallic conduits exposed above-ground. The passive electromagnetic receiver was used to identify active electrical conduits.

Semi-continuous GPR data were collected along 16 traverses. These data were produced in the form of vertical cross sections and interpreted in the field for approximate depths to known conduits.

Results and Conclusions

The surface trace of detected subsurface metallic conduits in the area of investigation was marked on the ground with spray paint and mapped on a blueprint drawing provided to us by Alton Geoscience personnel. Approximate depths of selected conduits are also on the blueprint drawing.

The depth of penetration of the GPR signal ranged from 6 inches on the gravel roads to approximately 4 feet in the open field. GPR was not used to identify new locations where subsurface conduits were present; it was only used for determining depths to select known conduits that had been previously identified.

Spectrum does not guarantee that all subsurface metallic conduits have been identified as a result of this investigation. In addition, locations marked by Spectrum on the provided blueprint may not be exact because no actual surveying of the area of investigation was done.